

# SAFETY DATA SHEET

Creation Date 24-Nov-2010

Revision Date 25-Mar-2024

**Revision Number** 4

1. Identification

**Product Name** 

## Lead(IV) acetate, stabilized with 5-10% glacial acetic acid

## Cat No. : A15551

CAS No Synonyms 546-67-8 Lead tetraacetate; LTA

Recommended Use Uses advised against Laboratory chemicals. Food, drug, pesticide or biocidal product use.

#### Details of the supplier of the safety data sheet

#### <u>Company</u>

Thermo Fisher Scientific Chemicals, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757

#### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe:** +32 14 57 52 99 **CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe:**001-703-527-3887

## 2. Hazard(s) identification

#### **Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Acute oral toxicity<br>Acute Inhalation Toxicity - Dusts and Mists<br>Carcinogenicity | Category 4<br>Category 4<br>Category 1B |
|---|---|
| Reproductive Toxicity   | Category 1A                             |
| Specific target organ toxicity - (repeated exposure)                                  | Category 2                              |
| Target Organs - Central nervous system (CNS), Blood, Kidne                            | y.                                      |

#### Label Elements

Signal Word Danger

Hazard Statements

May cause cancer

May damage the unborn child. Suspected of damaging fertility May cause damage to organs through prolonged or repeated exposure Harmful if swallowed or if inhaled



#### Precautionary Statements Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Do not breathe dust/fume/gas/mist/vapors/spray

#### Response

IF exposed or concerned: Get medical attention/advice

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

#### Rinse mouth

Storage

## Store locked up

## Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

WARNING. Cancer - https://www.p65warnings.ca.gov/.

## 3. Composition/Information on Ingredients

| Component         | CAS No   | Weight % |
|-------------------|----------|----------|
| Lead (IV) acetate | 546-67-8 | 95-96    |
| Acetic acid       | 64-19-7  | 4-5      |

|                | 4. First-aid measures   |
|----------------|---|
| General Advice | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.   |
| Eye Contact    | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.      |
| Skin Contact   | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.   |
| Inhalation     | Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a |

|                                     | pocket mask equipped with a one-way valve or other proper respiratory medical device.<br>Immediate medical attention is required.   |
|-------------------------------------|---|
| Ingestion                           | Do NOT induce vomiting. Call a physician or poison control center immediately.  |
| Most important symptoms and effects | Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: May cause harm to the unborn child: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated |
| Notes to Physician                  | Treat symptomatically   |

## 5. Fire-fighting measures

| Suitable Extinguishing Media                 | CO $_{\mbox{\tiny 2}},$ dry chemical, dry sand, alcohol-resistant foam. |
|--|---|
| Unsuitable Extinguishing Media               | No information available  |
| Flash Point<br>Method -                      | No information available<br>No information available                    |
| Autoignition Temperature<br>Explosion Limits | No information available  |
| Upper  | No data available   |
| Lower  | No data available   |
| Sensitivity to Mechanical Impac              | t No information available  |
| Sensitivity to Static Discharge              | No information available  |

#### **Specific Hazards Arising from the Chemical**

The product causes burns of eyes, skin and mucous membranes.

#### **Hazardous Combustion Products**

Lead. lead oxides.

#### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

#### NFPA

| Health<br>3               | Flammability<br>0  | <b>Instability</b><br>0 | Physical hazards<br>N/A |
|---------------------------|--|-------------------------|-------------------------|
|                           | 6. Accidental rel  | ease measures           |                         |
| Personal Precautions      | Use personal protective equipment as required. Evacuate personnel to safe areas. Ensure<br>adequate ventilation. Keep people away from and upwind of spill/leak. Avoid dust formation. |                         |                         |
| Environmental Precautions | Should not be released into the environment. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage.                                 |                         |                         |

Methods for Containment and Clean Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Up

|          | 7. Handling and storage  |
|----------|--|
| Handling | Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not ingest. If swallowed then seek immediate medical assistance. Do not breathe (dust, vapor, mist, gas). Avoid dust formation. |
| Storage. | Keep in a dry place. Keep container tightly closed. Keep under nitrogen. Keep refrigerated. Corrosives area. Incompatible Materials. Strong acids. Alcohols. Strong reducing agents.   |

## 8. Exposure controls / personal protection

## Exposure Guidelines

| Component         | ACGIH TLV    | OSHA PEL                            | NIOSH                        | Mexico OEL (TWA) |
|-------------------|--------------|-------------------------------------|------------------------------|------------------|
| Lead (IV) acetate |              |                                     | IDLH: 100 mg/m <sup>3</sup>  |                  |
| . ,               |              |                                     | TWA: 0.050 mg/m <sup>3</sup> |                  |
| Acetic acid       | TWA: 10 ppm  | (Vacated) TWA: 10 ppm               | IDLH: 50 ppm                 | TWA: 10 ppm      |
|                   | STEL: 15 ppm | (Vacated) TWA: 25 mg/m <sup>3</sup> | TWA: 10 ppm                  | STEL: 15 ppm     |
|                   |              | TWA: 10 ppm                         | TWA: 25 mg/m <sup>3</sup>    |                  |
|                   |              | TWA: 25 mg/m <sup>3</sup>           | STEL: 15 ppm                 |                  |
|                   |              | -                                   | STEL: 37 mg/m <sup>3</sup>   |                  |

#### <u>Legend</u>

ACGIH - American Conference of Governmental Industrial Hygienists OSHA - Occupational Safety and Health Administration NIOSH: NIOSH - National Institute for Occupational Safety and Health

| Engineering Measures          | Ensure adequate ventilation, especially in confined areas.  |  |
|-------------------------------|---|--|
| Personal Protective Equipment |   |  |
| Eye/face Protection           | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.   |  |
| Skin and body protection      | Wear appropriate protective gloves and clothing to prevent skin exposure.   |  |
| Respiratory Protection        | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |  |
| Recommended Filter type:      | Particulates filter conforming to EN 143.   |  |
| Hygiene Measures              | Handle in accordance with good industrial hygiene and safety practice.  |  |

9. Physical and chemical properties

| ,                                      |                                  |
|--|----------------------------------|
| Physical State                         | Powder Solid                     |
| Appearance                             | Light brown                      |
| Odor                                   | vinegar-like                     |
| Odor Threshold                         | No information available         |
| pH                                     | No information available         |
| Melting Point/Range                    | 175 - 180 °C / 347 - 356 °F      |
| Boiling Point/Range                    | No information available         |
| Flash Point                            | No information available         |
| Evaporation Rate                       | Not applicable                   |
| Flammability (solid,gas)               | No information available         |
| Flammability or explosive limits       |                                  |
| Upper                                  | No data available                |
| Lower                                  | No data available                |
| Vapor Pressure                         | No information available         |
| Vapor Density                          | Not applicable                   |
| Specific Gravity                       | 2.2280                           |
| Solubility                             | Decomposes in contact with water |
| Partition coefficient; n-octanol/water | No data available                |
| Autoignition Temperature               | No information available         |
| Decomposition Temperature              | No information available         |
|  |                                  |

| Viscosity |         |
|-----------|---------|
| Molecular | Formula |
| Molecular | Weight  |

Not applicable C8 H12 O8 Pb 443.36

# 10. Stability and reactivity None known, based on information available

| Reactive Hazard                                    | None known, based on information available                              |  |
|--|---|--|
| Stability  | Moisture sensitive. Air sensitive.                                      |  |
| Conditions to Avoid                                | Exposure to air. Incompatible products. Exposure to moist air or water. |  |
| Incompatible Materials                             | Strong acids, Alcohols, Strong reducing agents                          |  |
| Hazardous Decomposition Products Lead, lead oxides |   |  |
| Hazardous Polymerization                           | Hazardous polymerization does not occur.                                |  |
| Hazardous Reactions                                | None under normal processing.   |  |
|  |   |  |

## 11. Toxicological information

#### Acute Toxicity

## Product Information

| Component Info | rmation |
|----------------|---------|
|----------------|---------|

| Lead (IV) aceta  | Component      |                          | L  | .D50 Dermal   | LC50                  | Inhalation     |
|--|----------------|--------------------------|--|---|-----------------------|----------------|
| Lead (IV) acetate  |                | Not listed               | LD50 >                                   | 2000 mg/kg (Rat)  | LC50 > 5.05           | mg/L (Rat)41   |
| Acetic acid  |                | 3310 mg/kg (Rat)         |  | -   | > 40 mg/              | /L (Rat)4 h    |
| oxicologically Syne<br>roducts                                   | -              | No information available |  |   | · · ·                 |                |
| elayed and immedia   | ate effects as | well as chronic effec    | ts from short and                        | d long-term expos   | sure                  |                |
| ritation   |                | No information avail     | ilable                                   |   |                       |                |
| ensitization   |                | No information avail     | ilable                                   |   |                       |                |
| arcinogenicity   |                | The table below inc      | licates whether ea                       | ch agency has liste   | ed any ingredient     | as a carcinoge |
| Component  | CAS No         | IARC                     | NTP                                      | ACGIH   | OSHA                  | Mexico         |
| Lead (IV) acetate  | 546-67-8       | Not listed               | Reasonably<br>Anticipated                | Not listed  | Not listed            | Not listed     |
| Acetic acid  | 64-19-7        | Not listed               | Not listed                               | Not listed  | Not listed            | Not listed     |
| NTP: (National Tox   | City Program)  | No information ava       | Known - Kno<br>Reasonably<br>Carcinogen  | nal Toxicity Program)<br>own Carcinogen<br>Anticipated - Reason | ably Anticipated to I | be a Human     |
| utagenic Effects   |                |                          |  |   |                       |                |
| 0  | i              | No information ava       |  |   |                       |                |
| Iutagenic Effects<br>Reproductive Effects<br>Nevelopmental Effec |                | No information avai      | ilable.                                  |   |                       |                |
| eproductive Effects  |                |                          | ilable.<br>ilable.                       | experimental anima  | als.                  |                |
| eproductive Effects  | ts<br>ure      | No information avai      | ilable.<br>ilable.<br>have occurred in t |   | als.                  |                |

| Symptoms / effects,both acute and delayed | Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: May cause harm to the unborn child: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated |
|---|--|
| Endocrine Disruptor Information           | No information available   |
| Other Adverse Effects                     | The toxicological properties have not been fully investigated.   |

## 12. Ecological information

#### Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

| Component   | Freshwater Algae | Freshwater Fish           | Microtox                | Water Flea         |
|-------------|------------------|---------------------------|-------------------------|--------------------|
| Acetic acid | -                | Pimephales promelas: LC50 | Photobacterium          | EC50 = 95 mg/L/24h |
|             |                  | = 88 mg/L/96h             | phosphoreum: EC50 = 8.8 |                    |
|             |                  | Lepomis macrochirus: LC50 | mg/L/15 min             |                    |
|             |                  | = 75 mg/L/96h             | Photobacterium          |                    |
|             |                  | _                         | phosphoreum: EC50 = 8.8 |                    |
|             |                  |                           | mg/L/25 min             |                    |
|             |                  |                           | Photobacterium          |                    |
|             |                  |                           | phosphoreum: EC50 = 8.8 |                    |
|             |                  |                           | mg/L/5 min              |                    |

Persistence and Degradability

based on information available. May persist

**Bioaccumulation/Accumulation** 

No information available.

Mobility

| Component   | log Pow |
|-------------|---------|
| Acetic acid | -0.2    |

## 13. Disposal considerations

. Will likely be mobile in the environment due to its water solubility.

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

|                      | 14. Transport information |
|----------------------|---------------------------|
| DOT                  |                           |
| UN-No                | UN1616                    |
| Proper Shipping Name | LEAD ACETATE              |
| Hazard Class         | 6.1                       |
| Packing Group        | III                       |
| <u>_TDG</u>          |                           |
| UN-No                | UN1616                    |
| Proper Shipping Name | LEAD ACETATE              |
| Hazard Class         | 6.1                       |
| Packing Group        | III                       |
| <u>IATA</u>          |                           |
| UN-No                | UN1616                    |
| Proper Shipping Name | LEAD ACETATE              |
| Hazard Class         | 6.1                       |
| Packing Group        | III                       |
| IMDG/IMO             |                           |
| UN-No                | UN1616                    |
|                      |                           |

| Proper Shipping Name<br>Hazard Class | LEAD ACETATE<br>6.1        |
|--------------------------------------|----------------------------|
| Subsidiary Hazard Class              | P                          |
| Packing Group                        | III                        |
|                                      | 15. Regulatory information |

United States of America Inventory

| Component         | CAS No   | TSCA | TSCA Inventory notification -<br>Active-Inactive | TSCA - EPA Regulatory<br>Flags |
|-------------------|----------|------|--|--------------------------------|
| Lead (IV) acetate | 546-67-8 | Х    | ACTIVE   | -                              |
| Acetic acid       | 64-19-7  | Х    | ACTIVE   | -                              |

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710) X - Listed '-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

TSCA 12(b) - Notices of Export

Not applicable

Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component         | CAS No   | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|-------------------|----------|-----|------|-----------|-------|------|------|------|-------|----------|
| Lead (IV) acetate | 546-67-8 | Х   | -    | 208-908-0 | Х     | Х    | Х    | Х    | Х     | KE-21946 |
| Acetic acid       | 64-19-7  | Х   | -    | 200-580-7 | Х     | Х    | Х    | Х    | Х     | Х        |

**KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

#### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. Note that PBT chemicals are not eligible for the de minimis exemption. For these chemicals, supplier notification limits are provided.

> 0 % = no low concentration cut-off set, supplier notification limit applies.

| Component         | CAS No   | Weight % | SARA 313 - Threshold<br>Values % | SARA 313 - Reporting<br>threasholds |
|-------------------|----------|----------|----------------------------------|-------------------------------------|
| Lead (IV) acetate | 546-67-8 | 95-96    | > 0 %                            | RT = 100 lb                         |

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### CWA (Clean Water Act)

| Component         | CWA - Hazardous<br>Substances | CWA - Reportable<br>Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|-------------------|-------------------------------|--------------------------------|------------------------|---------------------------|
| Lead (IV) acetate | -                             | -                              | Х                      | -                         |
| Acetic acid       | Х                             | 5000 lb                        | -                      | -                         |

Clean Air Act

|  | Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|--|-----------|-----------|-------------------------|-------------------------|
|--|-----------|-----------|-------------------------|-------------------------|

| Lead (IV) acetate | Х | - |
|-------------------|---|---|

**OSHA** - Occupational Safety and Not applicable Health Administration

## CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

| Component   | Hazardous Substances<br>RQs | CERCLA Extremely<br>Hazardous Substances<br>RQs | SARA Reportable Quantity<br>(RQ) |
|-------------|-----------------------------|---|----------------------------------|
| Acetic acid | 5000 lb                     | -   | 5000 lb<br>2270 kg               |

California Proposition 65

This product contains the following Proposition 65 chemicals.

| Component         | CAS No   | California Prop. 65 | Prop 65 NSRL | Category   |
|-------------------|----------|---------------------|--------------|------------|
| Lead (IV) acetate | 546-67-8 | Carcinogen          | -            | Carcinogen |
|                   |          |                     |              |            |

## U.S. State Right-to-Know

#### Regulations

| Component         | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------|---------------|------------|--------------|----------|--------------|
| Lead (IV) acetate | Х             | Х          | Х            | Х        | -            |
| Acetic acid       | Х             | Х          | Х            | -        | Х            |

#### **U.S. Department of Transportation**

| U.S. Department of Homeland                         | This product does not contain any DHS chemicals. |
|---|--|
| DOT Marine Pollutant<br>DOT Severe Marine Pollutant | Y<br>N   |
| Reportable Quantity (RQ):                           | Y  |

## Security

#### Other International Regulations

Mexico - Grade

No information available

#### Authorisation/Restrictions according to EU REACH

| Component         | CAS No   | REACH (1907/2006) -<br>Annex XIV - Substances<br>Subject to Authorization | REACH (1907/2006) -<br>Annex XVII - Restrictions<br>on Certain Dangerous<br>Substances   | REACH Regulation (EC<br>1907/2006) article 59 -<br>Candidate List of<br>Substances of Very High<br>Concern (SVHC) |
|-------------------|----------|---|--|---|
| Lead (IV) acetate | 546-67-8 | -   | Use restricted. See item<br>30.<br>(see link for restriction<br>details)<br>Use restricted. See item<br>63.<br>(see link for restriction<br>details)<br>Use restricted. See item<br>75.<br>(see link for restriction<br>details) | -   |
| Acetic acid       | 64-19-7  | -   | Use restricted. See item 75.   | -   |

|  | (see link for restriction details) |  |
|--|------------------------------------|--|
|  | detaile)                           |  |

#### **REACH links**

https://echa.europa.eu/substances-restricted-under-reach

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

| Component         | CAS No   | OECD HPV       | Persistent Organic<br>Pollutant | Ozone Depletion<br>Potential | Restriction of<br>Hazardous<br>Substances (RoHS) |
|-------------------|----------|----------------|---------------------------------|------------------------------|--|
| Lead (IV) acetate | 546-67-8 | Not applicable | Not applicable                  | Not applicable               | Not applicable                                   |
| Acetic acid       | 64-19-7  | Listed         | Not applicable                  | Not applicable               | Not applicable                                   |

#### Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

#### **Other International Regulations**

| Component         | CAS No   | Seveso III Directive<br>(2012/18/EC) -<br>Qualifying Quantities<br>for Major Accident<br>Notification | Seveso III Directive<br>(2012/18/EC) -<br>Qualifying Quantities<br>for Safety Report<br>Requirements | Convention (PIC) | Basel Convention<br>(Hazardous Waste) |
|-------------------|----------|---|--|------------------|---------------------------------------|
| Lead (IV) acetate | 546-67-8 | Not applicable  | Not applicable   | Not applicable   | Annex I - Y31                         |
| Acetic acid       | 64-19-7  | Not applicable  | Not applicable   | Not applicable   | Annex I - Y34                         |

## 16. Other information

Prepared By

#### Health, Safety and Environmental Department Email: chem.techinfo@thermofisher.com www.thermofisher.com

| Creation Date    | 24-Nov-2010  |
|------------------|--|
| Revision Date    | 25-Mar-2024  |
| Print Date       | 25-Mar-2024  |
| Revision Summary | New emergency telephone response service provider. |

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

## **End of SDS**